

Abstract of the Disclosure

Linking sequences which modulate cross-talk between modules of Type I polyketide synthases have been identified. Thus, arbitrarily chosen modules can be mixed and matched by supplying the appropriate linkers to obtain desired polyketide synthases and new polyketides. The modules are provided suitable linkers so that the polyketide chain is passed from one module to the other in the correct sequence. Synthetic peptides which mimic linkers can be used to inhibit the synthesis of polyketides. Kinetic channeling, both intrapolypeptide and interpolypeptide, of diketide intermediates in a Type I polyketide synthase can occur.